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EXAMINER

KENDALL, CHUCK O

ART UNIT

PAPER NUMBER

2122

20

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/522,319

Applicant(s)

BALLANTYNE ET AL.7

Examiner

Chuck O Kendall

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 19.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. This action is in response to the application filed 02/24/03

Claims 1-5,8-11,13-15,17-20 have been examined.

Response to Arguments

Applicant's arguments with respect to claims 1-5,8-11,13-15,17-20 have been considered but are not persuasive to overcome previous rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 17-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Kelliher et al USPN 5,857,194 hereinafter Kelliher in view of Eager et al USPN 5,960,200 hereinafter Eager.

With Regards, to claims 1, & 17 Kelliher shows, a method for modeling a legacy computer system comprising: legacy computer system that outputs data; [6:15-24, see out put generator], defining a control flow graph of the output incidents.[6:15-24, see control flow and out put generator]. Kelliher doesn't explicitly disclose identifying output incidents of applications that output data. However Eager does disclose this feature, see claim 18. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combining and or modify Kelliher with Eager to implement

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the instant claimed invention because, identifying output statements during Legacy application modeling or transition makes transitioning to the newer architecture more efficient.

Regarding claim 2 the method of Claim 1 further comprising:

identifying the value or type of the data fields associated with each output incident; and
attaching the value or type to the control flow graph.[*Kelliher*, see 2: 27-30].

Regarding claim 3 the method of Claim 2 wherein identifying the value or type further comprises:

identifying output incidents of invariant data fields; and
[*Kelliher* 5:7-10, see fixed set of fields].

attaching the value of each invariant data field to its associated control flow graph incident.

[refer back to *Kelliher*, see 2: 27-30, for control flow of key fields].

Regarding claim 4 method of Claim 2 wherein identifying the value or type further comprises:

identifying output incidents of variant data fields; and [*Kelliher*, see 2: 39-45].
attaching the type of each variant data field to its associated control flow graph incident.

[refer back to *Kelliher*, see 2: 27-30, for control flow of key fields].

Regarding claims 18 and 20 method of claim 17, wherein incidents comprise report commands (*Eager*,12:5:10 and 35-44).

Regarding claim 19, the system of claim 10, wherein the modeling engine is operable to identify the incidents within the source code of the application (*Eager*,26:2-27, 27:12-20).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5,8-11,13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelliher as applied in claim 1, and 10 in view of Eager et al USPN 5,960,200 hereinafter Eager and further in view of Meltzer et al. USPN 6,125,391 hereinafter Meltzer.

With regards to claim 5 Kelliher as modified discloses all the claimed limitations as applied in claim1 as cited. Kelliher doesn't explicitly disclose plural nodes having associated arcs. However Meltzer discloses plural nodes having arcs in a legacy system. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kelliher and Meltzer to achieve the cited limitation because, "nodes establish interfaces for transactions in Networks" [Meltzer 2: 55-56].

(In Kelliher 6: 45-50, and Claim, 1g Kelliher provides a suggestion for this combination, "the use of a conventional communication (Network) system for data extraction.")

With regards to claim 8 Kelliher as modified discloses all the claimed limitations as applied in claim1 as cited. Kelliher doesn't explicitly disclose associating the incidents with an Extensible Markup Language schema and creating a specification to modify the legacy computer system applications to provide output in Extensible Markup Language format. However Meltzer disclose this feature. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kelliher as modified and Meltzer to achieve the cited limitation because, because XML is a industry standard format, and is widely used with conventional communication systems such as the internet.

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Regarding claim 9, per Claim 8 further discloses; automatically modifying the legacy computer system applications in accordance with the specification. [Kelliher, see claim 1g, predefined format in a conventional communication system, also see Meltzer for XML et seq].

With regards to claim 10, Kelliher as modified discloses all the limitations a applied in claim 1. Kelliher doesn't explicitly disclose a modeling engine. However, Meltzer does disclose a similar apparatus.[fig 5, see Element generator and attribute Generator]. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify, Kelliher as modified with Meltzer to implement the instant claimed invention because, it is a general practice in the field to be able to interface between Architectures.

With regards to claim 11 Kelliher as modified discloses all the claimed limitations as applied in claim1 as cited. Kelliher doesn't explicitly disclose plural nodes having associated arcs. However Meltzer discloses plural nodes having arcs in a legacy system. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kelliher as modified and Meltzer to achieve the cited limitation because," nodes establish interfaces for transactions in Networks" [Meltzer 2: 55-56] also refer to Kelliher 6: 45-50, which suggests the motivation to combine, "the use of a conventional communication (Network) system for data extraction."

Regarding claim 13, the system of claim 10 wherein the control flow graph of the output operations comprises as a formal grammar that describes the flow paths from each start command to the associated stop commands. [Meltzer 31,26-35]

Regarding claim 14 the system of Claim 10 further comprising a graphical user interface in communication with the modeling engine, the graphical user interface operable to display the control flow graph formal incidents.

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[Kelliher, 2: 1-5 for interface fields and refer back to Kelliher, see 2: 27-30, *for control flow of key fields*].

Regarding claim 15 the system of Claim 14 wherein the graphical user interface further communicates with a mapping engine and an Extensible Markup Language schema, the mapping engine operable to map the incidents of the applications with the control flow graph formal grammar and the Extensible Markup Language schema. [Meltzer 31,26-35]

Regarding Applicants argument in claim 1,10. Examiner is still not convinced that the claims and Applicants assertions overcome the cited prior art. The claims still read very broadly and by interpretation Examiner still maintains that Eager still reads on the cited limitations. For example in claim 1, Applicant cites "identifying incidents of applications of the legacy computer system that output data and defining a control flow graph of the output data incidents". As understood and previously discussed the incidents which Applicant refers to is an output or write statement. And Applicant merely cites identifying write statements that output data. In several portions of Eager, specifically in column 26, lines 24-28, Eager cites execution rules on the source code that produces outputs of which are data access commands and data definition structures. In column 27, he describes outputs to spawn from the data definition, data access commands. He further claims 18 "obtaining the identified outputs from the legacy applications". Applicants claim is being interpreted in its broadest state; consequently, Examiner still maintains his rejection. Regarding defining a control flow Eager discloses this in several portions of the art. Specifically in columns 36 and 37 Eager discloses several Graphical Editors 310,320,330,340. As cited 320 especially enables business process to be represented in a graphical form more intuitively as in process flowcharts 31:5-15. With regards to Applicants assertion for no motivation to combine Kelliher and Eager, Examiner disagrees. Both Kelliher and Eager and very much analogous art, dealing with Legacy system either through reengineering, transitioning, rearchitecting, or support for legacy system as disclosed in Eager and transmission and mapping of Legacy data in Kelliher. Applicants disclosure deals with Modeling a Legacy system, which is very similar to what both Kelliher and Eager have shown. In all three applications definitions and specifications have to be declared and

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met in order for the system to proper efficiently. Therefore visually or graphically representing fields or incidents during this process in order to efficiently design or improve a system is a general solution and a reason for one to be motivated to employ any one of the techniques as discussed or combined by the prior art.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence Information

Any inquires concerning this communication or earlier communications from the examiner should be directed to Chuck O. Kendall who may be reached via telephone at (703) 308-6608. The examiner can normally be reached Monday through Friday between 8:00 A.M. and 5:00 P.M. est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Greg Morse* can be reached at (703) 308-4789.

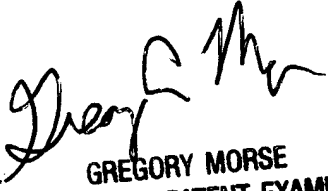
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

For facsimile (fax) send to 703-7467239 official and 703-7467240 draft

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Software Engineer Patent Examiner
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